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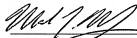
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in the following listed application(s) or patent(s) for which the issue fee has been paid.

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(12) **United States Patent**  
**Koyama**(10) **Patent No.:** **US 7,786,958 B1**  
(45) **Date of Patent:** **Aug. 31, 2010**(54) **EL DISPLAY DEVICE AND ELECTRONIC DEVICE**(75) Inventor: **Jun Koyama, Kanagawa (JP)**(73) Assignee: **Semiconductor Energy Laboratory Co., Ltd. (JP)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 19 days.

(21) Appl. No.: **09/666,521**(22) Filed: **Sep. 20, 2000**(30) **Foreign Application Priority Data**

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(51) **Int. Cl.****G09G 3/30** (2006.01)(52) **U.S. Cl.** ..... **345/76; 345/83**(58) **Field of Classification Search** ..... **345/45; 345/74.1, 75.1, 76-83; 315/169.1-169.4; 257/72**

See application file for complete search history.

(56) **References Cited****U.S. PATENT DOCUMENTS**

- 3,909,788 A 9/1975 Kaelin et al.  
 4,954,746 A \* 9/1990 Taniguchi et al. .... 313/506  
 5,003,222 A \* 3/1991 Washo ..... 313/511  
 5,452,019 A 9/1995 Fukuda et al. .... 348/655  
 5,587,819 A \* 12/1996 Sunohara et al. .... 349/106  
 5,598,021 A 1/1997 O et al.  
 5,641,991 A 6/1997 Sakoh  
 5,643,826 A 7/1997 Ohtani et al. .... 437/88  
 5,652,600 A 7/1997 Khormaei et al.  
 5,659,328 A \* 8/1997 Todokoro et al. .... 345/74  
 5,721,562 A \* 2/1998 Kawashima et al. .... 345/76  
 5,747,928 A \* 5/1998 Shanks et al. .... 313/498  
 5,807,627 A 9/1998 Friend et al.  
 5,812,105 A 9/1998 Van de Ven  
 5,882,761 A 3/1999 Kawami et al.

- 5,886,474 A \* 3/1999 Asai et al. .... 315/169.1  
 5,920,080 A 7/1999 Jones  
 5,923,962 A 7/1999 Ohtani et al. .... 438/150  
 5,990,629 A \* 11/1999 Yamada et al. .... 315/169.3  
 6,043,797 A 3/2000 Clifton et al.  
 6,057,647 A 5/2000 Kurosawa et al.  
 6,072,450 A \* 6/2000 Yamada et al. .... 345/76  
 6,080,031 A \* 6/2000 Rogers et al. .... 445/25  
 6,091,381 A 7/2000 Uenuma

(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 0 595 649 A1 5/1994

(Continued)

**OTHER PUBLICATIONS**

JP 10-039791 English abstract.

(Continued)

**Primary Examiner**—Kimmhung Nguyen(74) **Attorney, Agent, or Firm**—Husch Blackwell Sanders LLP Welsh & Katz(57) **ABSTRACT**

In an EL display device in which color purity of each of red, blue and green is different, the EL display device displaying an image of a desired balance of red, blue and green is provided. A video signal supplied to each EL element is gamma ( $\gamma$ )-corrected by a correction circuit, the color purity of each of blue luminescence, green luminescence, and red luminescence is suitably controlled in accordance with the voltage and current of the corrected video signal.

**24 Claims, 9 Drawing Sheets**